REMARKS

I. Summary of the Office Action

In the Office Action mailed November 15, 2005, the Examiner rejected claims 1, 3-11, and 13-19 under 35 U.S.C § 103(a) as being allegedly unpatentable over U.S. Pat. Publication No. 2004/0244001 A1 ("Haller") in view of U.S. Pat. Publication No. 2003/0190915 A1 ("Rinne"). The Examiner also rejected claims 2 and 12 as being allegedly unpatentable over Haller in view of Rinne as applied to claims 1 and 10 and in further view of U.S. Pat. Publication No. 2003/0119512 ("Nakashima").

The present Response is intended to be fully responsive to the rejections raised by the Examiner and is believed to place the Application in condition for allowance. Further, Applicants do not concede any of the Examiner's rejections or comments not particularly addressed. Applicants respectfully request favorable reconsideration and allowance of the pending claims.

II. Status of the Claims

Now pending in this application are claims 1-19, of which claims 1, 9, 10, and 19 are independent, and the rest are dependent.

Each of independent claims 1 and 10 includes the elements: (i) receiving at a base transceiver station a signal sent wirelessly from a client station; (ii) selecting one of multiple base station controllers to which to route the signal from the base transceiver station, wherein the base station controller is selected based upon a characteristic of the signal; and (iii) routing the signal from the base transceiver station to the selected base station controller.

Each of independent claims 9 and 19 includes the similar elements: (i) receiving at a base transceiver station a first signal sent wirelessly from a client station; (ii) selecting a first one of

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multiple base station controllers to which to route the first signal from the base transceiver station, wherein the first base station controller is selected based upon a characteristic of the first signal, and routing the first signal over a packet switched network from the base transceiver station to the first selected base station controller; (iii) receiving at a base transceiver station a second signal sent wirelessly from a client station; and (iv) selecting a second one of multiple base station controllers to which to route the second signal from the base transceiver station, wherein the second base station controller is selected based upon a characteristic of the second signal, and routing the second signal over a packet switched network from the base transceiver station to the second selected base station controller.

III. Responses to the Claim Rejections

The Examiner rejected claims 1, 3-11, and 13-19 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Haller in view of Rinne. Under M.P.E.P. § 2143, in order to establish a *prima facie* case of obviousness of a claim over a combination of references, the Examiner must establish that the combination discloses or suggests every element recited in the claim, and the Examiner must show that it would have been obvious to a person of ordinary skill in the art to have combined the references in the manner suggested by the Examiner. Applicants respectfully submit that the Examiner has not met the requisite *prima facie* case of obviousness under M.P.E.P. § 2143 for at least the reasons that it is improper to combine Haller and Rinne, and that even if the two references were combined in the manner suggested by the Examiner, the combination of Haller and Rinne fails to disclose or suggest all of the claim elements.

In setting forth the obviousness rejection, the Examiner admitted that Haller "does not disclose [a] base station controller [being] selected based upon a characteristic of the signal." Office Action, p. 2-3. To make up for the deficiency in Haller, the Examiner asserted that Rinne

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"teaches a base station [that] chooses which of two radio network controllers to send messages to . . . based upon a CDMA signal from a mobile station." Office Action, p. 3. The Examiner further asserted that:

> it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Haller et al. with the base station controller is selected based upon a characteristic of the signal in order for the base station to rout[e] a call from the mobile station to the proper network, as taught by Rinne et al.

Office Action, p. 3. Applicants respectfully submit that Haller teaches away from such a combination with Rinne, and that combining Haller and Rinne in such a way would render Haller unsatisfactory for its intended purpose. In addition, Applicants further submit that Rinne does not teach or disclose "a base station [that] chooses which of two radio network controllers to send messages to . . . based upon a CDMA signal from a mobile station," and therefore Rinne fails to make up for the deficiency in Haller.

A. Combining Haller with Rinne Is Improper

Haller is directed to a method of "allowing a plurality of resource[] allocators to allocate resources." Haller, ¶ 0005. Haller teaches that a resource allocator is designed "to balance [a] load across [multiple] resources in order to reduce or eliminate performance bottlenecks when other resources are available to handle the workload." *Id.* ¶ 0001.

According to Haller, a problem in networking resource allocation "is the need to synchronize the allocation of resources by . . . resource allocators" without consuming too many resources from the network itself. Haller, ¶ 0003, lines 1-3. Haller is directed to solving a problem wherein resource allocators need to communicate with one another to allocate resources. *Id.* ¶ 0004. The extra communication between resource allocators thereby introduces, according to Haller, "a significant amount of communications in and to [a] system that are not

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related to the actual performance of the processing by the resources." *Id.* Haller addresses this problem by disclosing a method of synchronizing a plurality of independent resource allocators in such a way that they do not communicate with one another. *Id.* ¶ 0005, lines 1-4.

As stated by Haller, Haller achieves this method of resource allocation by directing resource allocators (such as base transceiver stations, for example) to allocate resources (such as base station controllers, for example) "based upon availability notifications from a plurality of resources." Haller, ¶ 0005, lines 4-7. The availability of a resource is based upon a characteristic of the resource itself, such as resource occupancy, for example. *See, e.g., id.* ¶ 0005, lines 7-10. The characteristic actually comprising the notification is then compared to one or more thresholds to determine availability. *See, e.g., id.* ¶ 0006. Further, "*the only communication* in the system . . . relating to resource usage are the notifications *transmitted by the resources* . . . to the resource allocators," and these notifications are only transmitted in two situations: (i) when there is a first communication between a resource and a resource allocator to establish their communication path, and (ii) "when a characteristic of a resource falls below or exceeds a threshold." *Id.* ¶ 0045, lines 14-21 (emphasis added).

Thus, Haller discloses a method of allocating resources without the need for resource allocators to communicate directly with one another. Rather, availability notifications are sent from the resources themselves. *See, e.g.*, Haller, ¶ 0045. The advantage of this method is that the *only* communications used to allocate resources in the system are these notifications transmitted by the resources to the resources allocators. *Id.* ¶ 0045, lines 14-17. Moreover, these communication notifications are "sent relatively infrequently, and therefore, the resource allocators . . . do not consume undue processing and communication bandwidth to exchange resource utilization information." *Id.* ¶ 0045, lines 18-25.

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In setting forth the section 103(a) rejection, the Examiner suggested that based on Rinne, it would have been obvious to one of ordinary skill in the art to modify Haller in such a way that a resource allocator (a base transceiver station in this case) chooses a resource (a base station controller in this case) based upon a characteristic of the signal sent from the mobile station to the base transceiver station, rather than from (or in addition to) a notification sent from the resource itself (the base station controller) to the resource allocator (the base transceiver station). Applicants respectfully submit, however, that under M.P.E.P. § 2143.01, Haller actually teaches away from a combination with Rinne, and that the modification of Haller suggested by the Examiner would render Haller unsatisfactory for its intended purpose, for at least the reasons discussed below.

Haller teaches, and its intended purpose includes, minimizing network communications regarding resource (base station controller) availability. Haller teaches minimizing such communications via a system wherein "the only communication in the system . . . relating to resource usage are the notifications transmitted by the resources . . . to the resource allocators." Haller, ¶ 0045. Thus, Haller teaches away from utilizing a characteristic of a signal sent from a mobile station to the base transceiver station for resource allocation. Under the teachings of Haller, a characteristic of a signal sent from a mobile station to the base transceiver station (the resource allocator) would have no bearing as to whether a base station controller (the resource) itself is available or not, and thus would have no bearing on the routing of the signal.

Moreover, under the teachings of Haller, using an additional and unnecessary signal to verify resource availability, other than an availability notification from the resource itself, would render Haller unsatisfactory for its intended purpose to minimize the use of network resources to allocate resources. According to Haller, the prior art had a problem of using too many system

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resources to allocate resources, and Haller attempted to overcome this problem by disclosing a method of allocating resources that would reduce the use of network resources. To use an additional, and unnecessary, way to allocate resources by using signals sent from a mobile station would violate the purpose of reducing the use of network resources to allocate network resources.

As such, Haller teaches away from a combination with Rinne, and modifying Haller with the teachings of Rinne to select a base station controller (resource) based on a characteristic of the signal from the mobile station to the base transceiver station would render Haller unsatisfactory for its intended purpose. Moreover, the Examiner provides no objective evidence to suggest such a combination of Haller and Rinne. Without Rinne, as acknowledged by the Examiner, Haller fails to disclose a base station controller that is selected based upon a characteristic of a signal, as recited in Applicants' pending independent claims 1, 9, 10, and 19. Applicants therefore submit that independent claims 1, 9, 10, and 19 are allowable for at least the reasons set forth above in this section.

B. The Combination of Haller and Rinne Still Fails to Teach an Element of Applicants' Independent Claims

Furthermore, Applicants respectfully submit that even if Haller and Rinne were to be combined, Rinne does not make up for the deficiency in Haller. Specifically, Rinne does not teach that a base transceiver station "chooses which of two radio network controllers to send messages to . . . based upon a CDMA signal from a mobile station," as alleged by the Examiner. Office Action, p. 3. Rather, Rinne discloses a method whereby a base station chooses which one of two radio network controllers to keep active during a handover procedure based on handover signaling messages sent from one radio network controller to the other radio network controller.

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Generally, Rinne discloses a method of executing handover procedures in a cellular system, i.e., changing the active base transceiver stations "serving a mobile station moving in the cellular network's coverage area." Rinne, ¶ 0002, lines 3-5; ¶ 0026, lines 1-3. Rinne primarily focuses on handovers between radio network controllers inside a generic radio network. Rinne, ¶ 0026, lines 1-3. According to Rinne, "[w]hen setting up a [mobile terminal] connection, one radio network controller is made an anchor controller, which . . . also serves as [the] active radio network controller at the initial stage of the connection. *Id.* ¶ 0076, lines 2-6. When a handover procedure is initiated, another radio network controller is made the active radio network controller. *Id.* ¶ 0076, lines 6-9. Further, the handover from the first radio network controller to the newly active second radio network controller occurs by routing the connection "to said second radio network controller via said first radio network controller." *Id.* ¶ 0037. According to Rinne, the handover procedure is carried out by having one radio network controller send handover signaling messages to another radio network controller, *id.* ¶ 0077, rather than from signals sent from the mobile station to the base station, as suggested by the Examiner, Office Action, p. 3.

In the alternative embodiment of Rinne cited by the Examiner, "there is no continuous connection between [the] two radio network controllers," such that one network controller can directly send the other controller inter-radio network controller handover signaling messages to direct the handover. Rinne, ¶ 0079. In such a case, according to Rinne, a base station serves as an intermediary by routing handover signaling messages between the two controllers in both directions. *Id.* In addition, the base station uses identification codes to distinguish messages between the two radio network controllers and to properly direct handover signaling message traffic between the two controllers. *Id.* ¶ 0079, lines 5-13.

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As such, Rinne does not disclose a method whereby a base station chooses which of two radio network controllers to send messages to based on a CDMA signal from a mobile station. Rather, Rinne discloses a method whereby a base station chooses which one of two radio network controllers to keep active during a handover procedure based on handover signaling messages sent from one radio network controller to the other radio network controller.

Thus, even if Rinne were to be combined with Haller, Rinne would not make up for the deficiencies of Haller. The combination of Haller and Rinne fails to teach or disclose each and every element of Applicants' pending independent claims 1, 9, 10, and 19, and the Examiner has failed to set forth a *prime facie* case of obviousness for these claims. Applicants therefore submit that independent claims 1, 9, 10, and 19 are allowable for at least the reasons set forth above in this section.

C. Dependent Claims

Without addressing the merits of the Examiner's statements regarding the pending dependent claims 2-8 and 11-18, which are not conceded, Applicants point out that these claims depend from and include all of the limitations of independent claims 1 and 10. Therefore, Applicants' dependent claims distinguish the cited references for the same reasons discussed above with regard to independent claims 1 and 10. Applicants respectfully request that the Examiner withdraw the rejections of the pending dependent claims.

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CONCLUSION

In view of the foregoing, Applicants submit that all of the pending claims are in condition for allowance. Therefore, Applicants respectfully request favorable reconsideration and allowance of all of the claims. If the Examiner would like to discuss any aspect of this case, the Examiner is invited to telephone the undersigned at 312-913-0001.

Respectfully submitted,

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP

Date: 1/3/2006

By: _____
Eric R. Moran
Reg. No. 50, 967

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